**DEPARTMENT OF HEALTH & HUMAN SERVICES** Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

TB Notes
No. 4, 2004

Dear Colleague:

Recently we said farewell to Paul Poppe, our esteemed Deputy Director, who retired in early January after 30 years of outstanding service to CDC. After a thorough search for a replacement that yielded many outstanding candidates for the position, we have hired Mr. Philip Talboy as Deputy Director of the division and welcome him to the DTBE family. Please see the Personnel Notes section for information on Paul's career and contributions, as well as on Phil's background and previous assignments.

In other staff news, I am happy to report that Dixie Snider, Jr., MD, MPH, was formally selected as the Chief of Science for CDC and the Agency for Toxic Substances and Disease Registry (ATSDR). Some of us remember Dixie from his time in this division. In 1985, he became Director of the Division of Tuberculosis Control and was the major architect of the first strategic plan for the elimination of TB in the United States, published in 1989. He was also a key player in developing the national plan for addressing multidrug-resistant TB. His friends and former colleagues in DTBE are delighted by the good news.

In early November, DTBE announced the availability of its most recent annual surveillance report, *Reported Tuberculosis in the United States, 2003*. CDC has been collecting TB surveillance data from all 50 states since 1953; thus, this year's report marks the 50$^{th}$ year of national TB surveillance. While the number of TB cases (14,874) and the rate (5.1 per 100,000 population) both decreased yet again in 2003 from the previous year, we note several concerning trends. TB cases in foreign-born persons now represent 53% of all U.S. cases, and the case rate among these persons is eight times greater than the rate for U.S.-born persons. Moreover, the decline in total case numbers from 2002 to 2003 was the smallest since 1992, and for the first time since 1989, the number of TB deaths increased. To regain our national momentum against this disease and accelerate the pace to achieve its eventual elimination, we will need to not only continue our concerted efforts but increase and intensify them.

The Advisory Council for the Elimination of Tuberculosis met in Atlanta on October 6 and 7, 2004. The group welcomed two new members, Professor Dick Fluck of Franklin and Marshall College in Lancaster, Pennsylvania, and Dr. Jennifer Flood of the California TB control program. Dr. Janet Collins, Acting Director of the National Center for HIV, STD, and TB Prevention (NCHSTP), reported in the NCHSTP staff updates that Dr. Eugene McCray, formerly of DTBE and for the last several years director of the NCHSTP Global AIDS Program, has been selected to be the Senior Scientific Advisor in

CDC's Office of Global Health. In other news, she mentioned the possibility of a TB funding increase in the 2005 appropriation bill.

In my DTBE updates, I discussed the new formula that will be used in determining funding levels for TB cooperative agreement recipients. This new formula will be based on current numbers of TB cases and other challenges (such as a high proportion of cases among foreign-born and minority populations). I was also pleased to announce that all 50 states have now signed up to participate in the Genotyping Network.

Mr. John Seggerson gave an update on the National Coalition for the Elimination of TB (NCET). We learned that NCET will be sponsoring an advocacy training meeting on February 23 in Vancouver, Canada. Dr. Lisa Panlilio reported on a respiratory protection stakeholders workshop being held by CDC in Atlanta Nov. 30 and Dec. 1 (see my update below). Dr. Charles Nolan discussed the events and trends that suggest the need to revise the Control of Tuberculosis statement, including the lack of progress against TB in foreign-born persons, the slowdown in the U.S. rate of decline, and the fact that TB is not disappearing in low-incidence areas. He reported that the revision is underway. Sponsored by CDC, ATS, and the Infectious Diseases Society of America (IDSA), the revision is being developed by a 19-member expert panel.

Dr. Reuben Granich provided an update on TB and HIV collaborative activities, and described a key workshop that was held in Addis Ababa, Ethiopia, on testing and surveillance of TB patients for HIV. Charles Schable of the CDC Office of Terrorism Preparedness and Emergency Response and Sarah Royce of California addressed opportunities for collaboration between staff of TB programs and bioterrorism programs. Dr. Michael Iademarco described the global efforts to develop a new TB vaccine, indicating that important progress has been made to date but that research must continue. A discussion on the use and benefits of nucleic acid amplification tests was lead by Dr. Tom Shinnick of DTBE and Kim Field, NTCA President. The next ACET meeting was scheduled for February 16-17, 2005, in Atlanta.

As an update, the respiratory protection workshop held November 30 and December 1 was well attended, with 202 registrants. The attendees represented industry, unions, and regulatory bodies, as well as the fields of occupational medicine, infectious disease control, and infection control and hospital epidemiology, providing good representation of the various stakeholders. A number of research issues germane to preventing transmission of airborne infectious agents were identified, although it remains to be seen how and when these issues will be addressed.

As we review our accomplishments of the past year and begin our work for the new year, I would like to express to all of you my heartfelt thanks for your hard work and dedication. Rest assured that you are making a difference. Best wishes for a healthy and happy 2005.

Kenneth G. Castro, MD

## In This Issue



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TB Notes

Centers for Disease Control and Prevention
Atlanta, Georgia 30333

Division of TB Elimination ♦ National Center for HIV, STD, and TB Prevention

**Number 4, 2004**

## HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

### San Diego County Implements Video DOT Program

The San Diego County TB Control Program has implemented a program that uses videophones to provide directly observed therapy (DOT) for selected patients currently receiving TB treatment. This program is being tested to determine its effectiveness as a safe and reliable method to supplement the existing in-person DOT program.

San Diego County reported 316 cases of active TB during 2003. Fifteen public health nurse (PHN) case managers working out of six regional offices provide case management for all patients with active TB. DOT is the initial adherence strategy for virtually all patients. The PHN case managers, in association with eight outreach workers, are responsible for providing all DOT visits. Traffic delays, travel distances, patient availability, and language barriers are only some of the challenges faced by staff members who provide DOT in San Diego County, which covers more than 4,200 square miles with a population of over 2.9 million.

The first videophone was installed in a patient's home in San Diego County on March 23, 2004. The program served a total of 12 patients during the first 3 months of operation.
Each patient begins treatment with standard in-person DOT provided by a PHN or outreach worker. Patients are selected for participation in the video DOT program based upon the PHN case manager's assessment using the following criteria:

- Patient has successfully completed at least 2 weeks of in-person DOT with 100% adherence;
- Patient has a stable residence with an appropriate place for videophone equipment;
- Patient is motivated and has family or other social support;
- Patient understands the need for TB treatment;
- Patient has the ability to accurately identify each medication and pour his or her own medications;
- Patient speaks a language that can be accommodated by video DOT personnel; and
- Either travel distance or time of patient's availability makes video DOT a good option.

The patient signs a consent form prior to participating in the program. The consent clarifies that participation is voluntary and the patient may opt to return to in-person DOT at any time during treatment. The patient agrees to return the equipment to the health department upon completion of treatment or discontinuation of video DOT.

The videophones purchased by the program have a 4-inch screen and connect directly to a standard telephone line. The PHN sets up the videophone in the patient's home and instructs the patient in the use of the videophone and in video DOT procedures. The PHN observes the first video DOT session in the patient's home. After video DOT is established, the PHN visits

*TB Notes is a quarterly publication of the Division of TB Elimination (DTBE), National Center for HIV, STD, and TB Prevention (NCHSTP), Centers for Disease Control and Prevention (CDC). This material is in the public domain, and duplication is encouraged. For information, contact*

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the patient at least monthly for routine visits and as needed to address any problems that arise.

Video DOT is observed and documented centrally at the TB control program office. A staff person who has also been introduced to the patient calls the patient at a mutually agreed-upon time. While one staff person is primarily responsible for observing the video DOT, other staff members who speak a variety of languages are available to provide assistance with interpretation as needed. There have been few technical problems in observing video DOT. On rare occasions there may be some difficulty in establishing the video connection. Redialing to establish a better connection has solved this.

During the first 3 months of the program, 282 video DOT observations were completed for 12 patients. Travel savings calculated for this implementation phase are summarized in the table below. The average distance of 19.1 miles per visit results in a saving of nearly $7.00 per visit in mileage expenses. Salary savings listed in the table are for typical outreach worker staff and account for an average of $10.40 per visit. These salary savings are even greater when visits are observed by a PHN. These calculations cover only travel time and personnel expenses during travel, and do not include the actual amount of time spent during the visit. Typical video DOT visits last 2 to 3 minutes, while in-person DOT visits may last 10 to 15 minutes.

Travel time and mileage saved in the 3-month implementation phase of the video DOT program:

| Total # Video DOT observed | Average miles/visit @ $.365 per mile | Average travel time/ visit @ $20/hr (salary + benefits) | Total miles @ $.365 per mile | Total travel time @ $20/hr (sal + benefits) |
|---|---|---|---|---|
| 282 | 19.1 mi @ $.365 = $6.97 | 31 min @ $20/hr = $10.40 | 5378 mi @ $.365 = $1963 | 146 hrs @ $20/hr = $2,920 |

The cost benefits of the program are evident after only 3 months of experience using video DOT. The minimum estimate of nearly $5,000 in savings on travel expenses and staff time is impressive and is anticipated to increase as more patients participate in the program. Patients are enthusiastic about the convenience and flexibility that video DOT provides. There were no DOT failures during the 3-month implementation phase, and all patients chose to continue with the program once it was established.

The program purchased 40 videophones at a cost of less than $200 per unit ($8,000 total). Savings realized in operating the program will soon cover this initial expense. If the videophones prove to be reliable, they will be used multiple times with no need to incur additional equipment costs. With the possibility of as many as 35 participants in the video DOT program at any one time, this program has the potential for significant cost savings while

providing safe, convenient, and reliable DOT services for patients. In addition, staff can be shifted to other priority activities, such as contact investigation, while still providing excellent patient adherence services for the community.

*—Submitted by Linda Bethel, PHN IV*
*San Diego County TB Control Program*

## TB Strain with Strong Persistence and with Highly Efficient and Rapid Transmission to HIV-Infected Patients, Louisiana, 2004

The Louisiana Office of Public Health TB Control Program detected a cluster of TB cases caused by the same organism, identified through restriction fragment length polymorphism (RFLP) fingerprinting. These cases were highly infectious, with multiple failures of directly observed therapy (DOT) for latent TB infection (LTBI) with isoniazid (INH, sometimes abbreviated as H), and with extremely virulent and rapidly transmissible organisms.

The source patient, Patient A, identified in November 1998, was diagnosed with sputum smear–positive TB and started on a standard adult treatment regimen of isoniazid, rifampin, pyrazinamide, and ethambutol (HRZE). Treatment compliance was adequate, recovery was satisfactory, sputum-smear conversion occurred within the first 2 months, and the patient was considered cured upon completion of 6 months of DOT. Six household contacts and five nonhousehold contacts of Patient A were evaluated, using Mantoux tuberculin testing, with infection rates of 100% (6/6) and 60% (3/5) respectively. In Louisiana, two different regimens for the treatment of LTBI are used. For children and HIV-infected persons, the recommended duration of LTBI treatment is 9 months. For all others, the recommended treatment duration is 6 months. All contacts with LTBI were treated with either the 6-month or the 9-month INH regimen, as appropriate.

In July 1999, Patient B, one of Patient A's children and a member of the household, was diagnosed with sputum smear–positive TB, with the same organism. A standard adult treatment regimen (HRZE) was used. Again, treatment compliance was adequate, recovery was satisfactory, sputum-smear conversion occurred within the first 2 months, and the patient was considered cured upon completion of 6 months of DOT.

In November 1999, Patient A was rediagnosed with sputum smear–positive TB, once more with the same TB organism. It is not clear whether the relapse was due to reactivation of previous disease or reinfection from Patient B. Patient A was re-treated with PAS (A) and ciprofloxacin (C) in addition to the standard drugs (HRZE). Once again, treatment compliance was adequate, recovery was satisfactory, sputum-smear conversion occurred within the first 2 months, and the patient was considered cured upon completion of 8 months of DOT. Six additional nonhousehold contacts of Patient A were investigated, with an infection rate of 88% (5/6). All contacts with LTBI were treated with INH for either 6 or 9 months.

In February 2004, Patient C, one of Patient A's grandchildren living in the same household, was diagnosed with sputum smear–positive TB. The same organism was identified. Patient C is currently on a directly observed regimen of INH, rifampin, pyrazinamide, and streptomycin (HRZS), is recovering well, and had sputum smear conversion within the first 2 months. Of the five household contacts of Patient C who were investigated, all were infected (infection rate of 100%). In addition, an infection rate of 55% (31/55) was found in high-risk nonhousehold contacts. In low-risk nonhousehold contacts, however, the infection rate was as low as 2% (1/52). Once again, all contacts with LTBI were treated with INH for either 6 or 9 months.

Recently, three more cases were diagnosed with sputum smear–positive or culture-positive TB, due to the same organism. They are summarized as follows:

- In February 2004, Patient D, a step-grandparent and household contact of Patient C, was diagnosed with culture-positive TB.
- In May 2004, Patient E was diagnosed with sputum smear–positive TB. Patient E was never named as a contact of Patient C. However, after RFLP matching, both cases were linked, with less than 3 hours' exposure. Patient E is known to be HIV infected.
- Also in May 2004, Patient F was diagnosed with culture-positive TB. Again, Patient F was not named as a contact of Patient C. After RFLP matching, however, Patient F was also linked to Patient C, having had occasional exposures totaling less than 4 hours per month. Patient F is also known to be HIV infected.

This case review shows that, in spite of prompt diagnosis and appropriate treatment of the cases, thorough contact identification and investigation, and adequate treatment for LTBI with INH, transmission of infection and occurrence of disease persisted. Infection rates for Patients A and C were 100% among high-risk household contacts, and were consistently high, even among high-risk nonhousehold contacts. The failure of INH treatment for LTBI to prevent disease, at least in Patient C, and possibly in Patient B, is an unusual finding. INH treatment for LTBI has been proven highly (at least 85%) effective at preventing disease.

Of note, documented transmission to Patients E and F, both HIV infected, was the result of very limited and short contact with Patient C. Even with an extremely timely and thorough TB contact investigation, this type of almost casual exposure usually will be missed. A high index of suspicion for HIV-infected contacts is obviously warranted, but in reality, the HIV status of contacts is often not known or not disclosed. As a result, it is advisable that all known HIV-infected persons, being highly susceptible to TB infection, have routine and regular tests for LTBI and TB disease. Treatment for LTBI is recommended for all coinfected persons. Timely assessment of risk and adequate prevention of TB will unquestionably improve the health and prolong the lives of HIV-infected persons.

*—Reported by Peter Vranken, RN, DPH, MBA*
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*and Carol Williams*
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## Southeastern TB Nurse Consultants' Meeting

On September 30, 2004, nurses representing Florida, Kentucky, Louisiana, North Carolina, South Carolina, Virginia, and CDC convened during the Annual Southeastern TB Controllers' Meeting held at the Ritz Carlton in New Orleans. Presentation and discussion topics included state reports; safety syringes, with information on retractable technology, by Kathryn Duesman; an NTNCC update, a correctional facility needs assessment, and staffing standards activities by Ellen Murray of Florida; and the Goal Attainment Scaling Project by Judy Gibson.

All the presentations were excellent, but those on safety syringes and retractable technology stood out, since "standard precautions" are recommended in every arena of health care, including TB skin testing. Nurses are among the greatest number of users of syringes and needles in patient care, and are at risk for needlestick injuries from the "old-fashioned" syringes and needles with which many nurses are familiar. The presentation and demonstration provided by Kathryn Duesman of Retractable Technology, Inc., reinforced the need for TB nurses to have access to a safety syringe that is practical and easy to use, and that also provides the precision required when administering a skin

test. Thus, the information about the new safety devices, how they work, and why they are necessary to the health and safety of nurses and other health care workers was of extreme interest to the group.

It had been several years since this group of nurses joined forces. All participants agreed that being familiar with their counterparts is beneficial not only to facilitating county and state TB program operations, but more importantly to improving the quality of patient services and care as public health nursing is challenged to maintain expertise during the 21st century. We look forward to the meeting next year in Kentucky, and challenge our TB controllers to have travel funds available.

*—Reported by Roma Oliveri, RN, MSN*
*Nurse Consultant, Louisiana TB Control Program*

Front, from left: David DeBiasi-VA-ALA, Donna Perkins-KY, Ellen Murray - FL, Judy Gibson-CDC, JoAnn Arnold-FL, Julie Luffman-NC
Back, from left: Jane Moore-VA, Elizabeth Zeringue-NC, Debra Ray-SC, Myra Allen-NC, Roma Oliveri-LA


## Evaluation Capacity Building: The Case of the TB Evaluation Working Group

In March 2003, DTBE formed an Evaluation Working Group (EWG). By May of the same year, EWG membership included program staff from several of the 68 sites funded by DTBE, representatives from the National TB Controllers Association (NTCA), and DTBE headquarters staff. Spearheaded by Dr. Mark Lobato and Maureen Wilce of DTBE, this group of over 20 active members was charged with developing a national 5-year strategic plan to improve program evaluation capacity at the state and local level. The group plans to ensure implementation of a comprehensive approach to building capacity through participatory evaluation of program performance.

Evaluation capacity building is different from, yet contributes greatly to, program evaluation. Program evaluation is "the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future program development."[1] As defined by Compton, Baizerman, and Stockdill, evaluation capacity building is "the intentional work to continuously create and sustain overall organizational processes that make quality evaluation and its uses routine."[2] Based on this definition, evaluation capacity building can be described as both a mandatory and supportive process needed to create an environment in which quality program evaluations can be performed. Of the frameworks for describing ECB that have been

proposed in the past decade, Milstein's and Cotton's[3] includes five elements that are demonstrated through the EWG'S work:

1. Motivational forces
2. Organizational environment
3. Workforce and professional development
4. Resources and supports
5. Learning from experience

*Motivational Forces.* Milstein and Cotton simply define motivational forces as the reasons why evaluation happens. In 1997, CDC charged an agency-wide Evaluation Working Group with identifying and organizing the essential elements of program evaluation and with promoting program evaluation both within the agency and throughout the public health system. Two major products of this working group were released in 1999: the CDC Framework for Program Evaluation in Public Health[1] and a set of recommendations for engaging in program evaluation at CDC and among programs funded by CDC. In addition to this new agency-wide emphasis on program evaluation, the Institute of Medicine recommended in 2000 that all TB programs regularly evaluate their performance.[4]

As a result of these recommendations, DTBE has included program evaluation as a required recipient activity in its 2005 cooperative agreements. In response, the DTBE EWG is working to prepare state and local programs for this requirement by developing an evaluation toolkit and evaluation expertise at the federal, state, and local levels. Already, TB programs assess their progress toward meeting national objectives with each funding cycle. They also routinely monitor their activities and submit surveillance information to CDC using the Report of Verified Case of Tuberculosis (RVCT) form. The evaluation toolkit is designed to improve evaluation capacity at the program level in order to turn those data into justified recommendations for program improvement.

*Organizational Environment.* The organizational environment describes the characteristics and setting in which capacity building is undertaken. Institutional support for program evaluation is not only demonstrated by the agency-wide Evaluation Working Group, but also at all levels of TB leadership. With assistance from NTCA, the DTBE EWG issued a web-based evaluation needs assessment to 59 state and local programs in September 2003 with a 92% response rate; 72% of respondents ranked evaluation as being "very beneficial" and only 17% listed "staff don't value evaluation" as being a barrier to evaluation. These findings suggest that state and local programs are receptive to program evaluation. In addition, the presence of state and local TB program staff on the EWG implies that their respective managers are also supportive of their participation. This support was further evidenced at the 2004 NTCA meeting, during which an evening session to share the progress of the EWG and solicit additional participation drew a capacity crowd and several commendations for the EWG efforts.

As encouraging as the NTCA meeting was, concerted efforts need to be taken to ensure that a receptive organizational environment is maintained at both local or state and federal levels. To accomplish this, "evaluation champions" must emerge who consistently promote evaluation and ECB. EWG members from DTBE, state, and local TB programs have served as champions in their respective communities, sharing the progress of the EWG, encouraging others to join, and reassessing evaluation activities at their sites. The membership of the EWG is held open so that as people in programs around the country become interested and available, they are encouraged to contribute. These actions help to ensure commitment to ECB from senior management all the way through local program staff. A logic model created by EWG members details the efforts that will be taken to generate a commitment to evaluation from state and local leadership.

*Workforce and Professional Development.* Workforce and professional development refers to the skills of professional evaluators and of other stakeholders who participate in the evaluation. The EWG has several members who are professionally trained evaluators. In addition, an outside contractor with expertise in ECB was hired to guide each phase of the 5-year plan and to support development of evaluation skills in the employees who will work with the EWG.

Among the capacity-building objectives of the EWG is for evaluation training to be offered to TB program staff through multiple venues. The EWG plans to compile existing training materials, supplement them as needed, and design a training course that can be operated nationwide. The final program evaluation training will include guidance on using the evaluation toolkit and will be offered at DTBE program manager courses, regional TB meetings, and other appropriate venues. Furthermore, the EWG encourages an assortment of TB staff to be trained in evaluation so that evaluation expertise is not limited to one person. Instead, multiple program staff should be trained to perform program evaluations in order to maximize the program's capacity.

In addition to evaluation training, technical assistance will be available to all states and locales as well as stakeholders through a peer network by summer 2006. The members of the peer network will share TB-specific evaluation guidance so as to provide support for programs as they plan and perform evaluations. In establishing the peer network, the EWG expects to improve the evaluation capacity at the state and local levels.

*Resources and Supports.* Resources and supports are the tools evaluators use to do their work. In order to build evaluation capacity at the state and local level, the EWG is developing an evaluation toolkit that will include references, guidance, and evaluation tools and indicators that programs can use or adapt. Also included in the toolkit will be instructions and sources of technical assistance so that programs will be able to plan and implement their own evaluations.

As the toolkit is being developed, support for EWG members is available in the form of an eRoom. The eRoom is a password-secure, interactive website that stores and posts documents, provides a bulletin board for announcements, and offers meeting planning features. Through the eRoom, the EWG is exploring ways to use Web-based technology to engage people interested in evaluation, regardless of home base. For example, EWG Tools Team members located around the country have come together in the eRoom to assign tasks, report progress, and post findings. Through this interactive forum, the EWG is more likely to not only attract and retain members, but also to share experiences and "evaluation wisdom," thereby helping to build capacity within the EWG.

*Learning from Experience.* Sharing lessons learned from the evaluation process is the final element in this framework for ECB. As mentioned earlier, the EWG wants to ensure that TB program evaluators share lessons learned through a peer network. Since many programs' evaluation questions will be specific to their site (for example, How successful was the peer education program in reducing the incidence of TB in the US-born African-American community in Fulton County?), it is important for evaluation skills to be shared within programs as well. It is for this reason that the intended audience for the evaluation toolkit and evaluation trainings include program staff at all levels.

*Ensuring Participation and Sustainability.* Though not explicitly mentioned in the five-element framework presented by Milstein and Cotton,[3] evaluation capacity building is also critical for ensuring participation and sustainability in evaluation efforts. All stakeholders in the TB program should be involved in the evaluation and should be the

beneficiaries of ECB efforts. In order to accomplish this, evaluation skill, knowledge, and dedication should not rest with one person. What if that person quits? What if that person is an outside evaluator? What if that person is unable to make changes based on the results of the evaluation in order to improve the program? By continually building capacity at all levels within an organization, or in the case of the TB EWG, between organizations (CDC, state programs, and local programs), programs become empowered to perform tailored evaluations through a participatory process.

*Conclusions and Next Steps.* Despite being described separately, the five elements of Milstein's and Cotton's framework and the need to ensure participation and sustainability are interrelated; the level of development of any one of the elements impacts the others. For example, the level of institutional support as described by the organizational environment determines the allocation of resources and support offered by management, which in turn impacts the participation and professional development generated. State and local programs are encouraged to consider each of the elements of evaluation capacity building and how they impact each other when planning and conducting program evaluations.

As the Evaluation Working Group enters Phase II of its 5-year plan, during which time the EWG expects to complete development of the toolkit and proceed to pilot testing, membership in the EWG remains open. You are encouraged to contact Maureen Wilce if you would like to be involved. All levels of participation are welcome!

*—Submitted by Carrie Bridges, MPH*
*Public Health Prevention Service Fellow*
*Div of TB Elimination*

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## TB EDUCATION AND TRAINING NETWORK UPDATES

### TB ETN Receives the Horizon Health Education Program Award

On October 22, 2004, the Tuberculosis Education and Training Network (TB ETN) was awarded the Horizon Health Education Program Award by CDC's Public Health Education and Promotion Network (PHEP-Net). PHEP-Net, an employee organization for health educators at CDC and the Agency for Toxic Substances and Disease Registry (ATSDR), presented the award as part of the 2004 CDC Health Education Day.

Each year PHEP-Net sponsors the Excellence in Health Education Awards to honor outstanding health education programs developed by CDC or in collaboration with CDC partners. The Horizon Award is given to a program developed by CDC or in collaboration with CDC partners, which has been in existence for 2-4 years, and exhibits significant potential to substantially and positively affect the practice of health education.
TB ETN was nominated for the award because of its significant growth and impact since its inception in 2001. There are now over 400 members in the network representing 48 states within the United States and a growing international representation. The network provides members opportunities to improve their skills, abilities, and knowledge about available resources and promotes collaborative efforts between TB programs and other organizations conducting TB education and training. Maria

Fraire of DTBE accepted the award on behalf of TB ETN; her acceptance remarks are included in the next article. To the right is a photo of Maria accepting the Horizon Award for TB ETN.

To learn more about TB ETN, please visit the TB ETN website at www.cdc.gov/nchstp/tb/tbetn.

*—Reported by Betsy Carter, MPH, CHES*
*Div of TB Elimination*

## TB ETN Horizon Award Acceptance Remarks

I am pleased to accept the Horizon Award on behalf of the Tuberculosis Education and Training Network, or TB ETN. TB ETN was established by the Division of Tuberculosis Elimination in 2001 as a result of recommendations outlined in the *Strategic Plan for Tuberculosis Training and Education.* One of the plan's key recommendations was the establishment of an education and training network that would help build a cadre of TB educators and trainers with improved skills and abilities, knowledge of available resources, and ability to serve as a resource for high-priority needs, such as outbreaks and implementation of new guidelines.

Because primary job responsibilities vary widely among the professionals conducting TB education and training (for example, nurses, outreach workers, physicians, health educators), TB ETN strives to build capacity by ensuring that members become familiar with and utilize the systematic health education process when developing education and training products and courses.

The goals of TB ETN include furthering TB education and training by

- Building, strengthening, and maintaining collaboration
- Providing a mechanism for sharing resources to avoid duplication
- Developing, improving, and maintaining access to resources
- Providing updated information about TB courses and training initiatives
- Assisting members in skill building

*Membership*

TB ETN membership is open to all persons who have an interest in TB education and training issues, and there are no membership fees. There are over 400 members representing U.S. and international agencies, such as TB programs, correctional facilities, hospitals, nursing homes, federal agencies, universities, the American Lung Association, the National TB Model Centers, and other organizations interested in TB education and training issues.

TB ETN is guided by a steering committee chosen by its members and in 2002, the network created three subcommittees to assist with carrying out and guiding TB ETN activities: Communications and Membership, Cultural Competency, and Conference Planning. Staff of the steering committee as well as of the subcommittees meet monthly via conference call and are guided by CDC staff.

The most important activity of TB ETN is the annual conferences that focus on the systematic health education process. Conferences emphasize skill-based sessions and networking activities. We've also been very pleased to have some PHEP-Net members attend the conferences.

In the 4 years since the network's inception, TB ETN has grown significantly and has become progressively more active. Collaborative efforts between TB programs and other organizations conducting TB education and training have increased the visibility, momentum, and impact of TB education and training efforts. TB ETN has raised awareness about the importance of education and training as an essential part of a TB program and as a result, has influenced the creation of new funding for education and training. This is demonstrated by the 2005 TB control program cooperative agreements in which DTBE included provisions of funds for human resource development (i.e., education and training). As part of this core component, each TB program must have at least one designated TB ETN member.

I would like to acknowledge the many people who help make the Network successful, including both past and current steering committee members, subcommittee co-chairs and members, and staff at CDC, including Wanda Walton, Betsy Carter, Gaby Benenson, and Teresa Goss.

And there is no better way to sum up the impact of TB ETN than to read a quote from Suzy Peters, a steering committee member, who was asked to write a letter of support for the award application.

*"If they only knew how much TB ETN means to those of us who are in TB education and training, there would be no contest. I have seen tremendous growth and excitement among TB educators over the last four years. The annual meetings are a great avenue for networking and I have made many new professional contacts all over the US and Canada. Now that TB ETN has more than 400 members, hosted four annual meetings, and holds three monthly sub-committee and steering committee calls, there is no limit to what this organization can accomplish.*

*I have been in public health and university education since 1967. I hold three degrees in health education and have been a member of many professional organizations. I can honestly say that I have never seen the level of positive impact of any of those groups that TB ETN has had in four years. I am very proud to be associated with TB ETN, and I know any new TB educators coming into the field will benefit greatly from this organization."*

Again, on behalf of TB ETN, thank you PHEP-Net for recognizing the outstanding contribution of the Tuberculosis Education and Training Network to the field of health education.

*—Presented by Maria Fraire, MPH, CHES*
*Div of TB Elimination*

## TB ETN Member Highlight

Julie McCallum, RN, MPH, is a Regional TB Nurse Consultant for the American Lung Association of Michigan. She received her BSN from Indiana Wesleyan University and her MPH from the University of Michigan.

Julie, an active member of TB ETN, heard about the organization shortly after she was hired by the American Lung Association of Michigan 2½ years ago. She saw information about an upcoming TB ETN conference and thought it would be very helpful. "I attended my first conference 2 years ago; it was a great opportunity for me to network with other nurses who were also involved in TB education. The networking opportunities with other TB educators appealed to me the most, as well as having access to resources from around the country and

world," Julie said. In addition to being a member of TB ETN, Julie also serves on the TB ETN cultural competency subcommittee. "I have an interest in cultural competency matters, and this subcommittee has given me an opportunity to work on projects related to the topic." Julie would like to see continued increases in membership and in networking opportunities in TB ETN's future.

Julie's job responsibilities include providing education and training for health care professionals on TB matters, and technical support and assistance for local TB control programs. Julie worked with Teri Lee Dyke (who also served as a Regional TB Nurse in Michigan) to develop a TB case management course targeted for local health department TB control staff, primarily nurse case managers. They gathered material from a number of sources and tailored it to their state's audience. This course has been presented eight times across Michigan, with attendance by 95 participants who are actively involved in a local TB control program.

Julie and Teri also developed a TB Skin Testing Workshop, with the help of the Ingham County Health Department. In 2002 and 2003, Julie and Teri provided this workshop at 70 sites across the state and trained 771 persons to administer and read the TB skin test. The sites have included local health departments, acute and long term care settings, state and county correctional facilities, mental health facilities, medical offices, and infection control networking groups.

Julie's state TB control staff also developed a TB contact investigation course, also targeted to local public health department staff. Since 2002, this course has been presented in 15 different locations statewide, with 181 persons attending.

All three of these core TB trainings were approved by the Michigan Nurses Association, which is accredited as an approver of continuing education in nursing by the American Nurses Credentialing Center Commission on Accreditation.

On the personal side, Julie keeps busy at home with her young family. Her interests include gardening and camping, and she adds, "I am a big University of Michigan football fan (Go Blue!) and enjoy following their season." Julie is married to Chad and had their first child last September. "Each day is a new adventure with our son Chase," Julie says.

*—Submitted by Regina Bess*
*Div of TB Elimination*

## Cultural Competency Subcommittee Update

"Scientists do not resist investigation of the human genome because it represents too much variety; the same scientific logic works equally well for sorting and classifying information about culture, ethnicity, and race."[1]

The Institute of Medicine report cited above states that the goal in cultural competency education is to increase public health professionals' cultural awareness, knowledge of self and others, communication skills, attitudes, and behaviors. To this end, the Cultural Competency Subcommittee of TB ETN is composed of TB trainers, educators, and controllers who are passionate about cultural competency and its application to TB control activities. The goal of the Cultural Competency Subcommittee is to inculcate the value of providing culturally and linguistically appropriate services among TB ETN members. If you are interested in joining this subcommittee, please send an e-mail to tbetn@cdc.gov.

The Cultural Competency Subcommittee is currently focused on compiling a cultural competency resource list. The list includes organizations that provide cultural competency–related services, cultural competency assessment tools, and references to cultural

competency–related published research. The resource list will be printed and included in the TB ETN conference binder. The group also plans to meet at the TB ETN conference in Atlanta, Georgia, to plan and discuss tasks for the following year.

### Cultural Competency Tip

By examining the successes and lessons learned among community-based organizations, health care providers can glean several strategies for effective outreach. Listen for the community's agenda and assign your priorities based on their expressed needs. Reach into the community through existing, respected groups, select culturally relevant media or materials to convey your message, and target whole families with understanding and respect. Make certain that outreach materials are not simple translations from English but rather are developed by persons familiar with the language, literacy level, and culture of the specific target subgroup.[2]

*—Submitted by Chris Ogolla, MA, MPH*
*TB ETN Cultural Competency Subcommittee*

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## TB ETN Fourth Annual Conference

The fourth annual TB Education and Training Network (TB ETN) conference was held in Atlanta last year. This 2 and a half day event took place August 11-13, 2004, and attracted approximately 130 participants from diverse professional affiliations who work in TB education and training. The conference theme, "TB Education and Training Survivor: Improving Skills, Building Alliances, Meeting Challenges," was adapted from the popular TV series "Survivor."

The presentations covered a wide array of topics, with the central focus on the systematic health education process. Participants attended both plenary lectures as well as breakout sessions designed to enhance skill-building. Presentations by TB program staff from Florida, Colorado, and Massachusetts provided participants with examples of how different health programs are answering the call to educate TB providers and patients. Representatives from the National TB Model Centers delivered updates about their programs, and CDC staff gave an overview of the 2005 Cooperative Agreement Funds for States and Designated Big Cites and the 2004-2008 National Strategic Plan for TB Education and Training.

One aspect of the conference focused on "Learning the Island Lingo—Cultural Competency in TB Education and Training" and addressed several pertinent areas, including conducting cultural competency assessments, working with interpreters and translators, understanding cross-cultural communication, and developing cultural competency training. These sessions were especially helpful for providers who are increasingly serving a more diverse population.

Below: Tribe "Front and Center" working on finding answers for the "Open-Book Bingo" Tribal Challenge.

Also underscored was "Communicating with the Mainland—How Technology is Changing TB Education and Training." This session highlighted a spectrum of new modes of communication such as online training and educational software, satellite and video broadcast, listservs, and online databases.

To cap off each day of the conference, a series of "tribal challenges" were played among conference participants. Participants were divided into teams or "tribes" and participated in interactive and competitive training games. These were created to reinforce the concepts learned throughout the day, and were designed in the spirit of "Survivor." One tribe was declared the overall tribal challenge winner at the end of the conference. The winning tribe, who called themselves "Front and Center," consisted of Bill Bower, Teri Lee Dyke, Genevieve Greeley, Hernando Salgado, MaryAnette Grayer, Joanne Sheppard, and Judith Thigpen. Each received a book on education and training activities.

Participants came away from the conference invigorated and equipped with new knowledge to practice and share in their work. They had the chance to form partnerships with others attending the conference by networking at such events as a social, hosted this year by a translation company, Translation Plus. Also, a wealth of resources in a variety of media were provided by

Below: Participants view and share resources at the Educational Materials Exhibit.

exhibitors who showcased their education and training products.

This year will be the 5-year anniversary of TB ETN and its annual conference. We would like to invite you to join us in celebrating this important

TB ETN Fifth Annual Conference:
*Stepping Up Education and Training to Eliminate TB*
Call for Abstracts

The Fifth Annual TB Education and Training Network (TB ETN) Conference will be held in Atlanta, GA, August 17-19, 2005. This year's conference will feature a poster session to give members of TB ETN an opportunity to share and discuss their work.

Please consider developing an abstract for poster presentation on a significant or innovative aspect of TB education and training in your work. Techniques that are associated with the systematic health education process (needs assessment, development, implementation, and evaluation) would be especially appropriate for poster presentation during this session.

If you have completed or will soon complete an education and training project that you would like to include in the session, please visit http://www.cdc.gov/nchstp/tb/TBETN/conference.htm for submission details. The deadline for submission is April 1, 2005.

For further information, please contact Betsy Carter at bcarter1@cdc.gov or at tel. (404) 639-8386.

milestone. Please complete and return the attached registration form to join or renew your membership (instructions are on the form). New and renewing members will receive a TB ETN membership lapel pin. Additional information about TB ETN can be found on the TB ETN website: http://www.cdc.gov/nchstp/tb/TBETN/default.htm.

*—Reported by Elizabeth Kalayil, MPH*
*Div of TB Elimination*

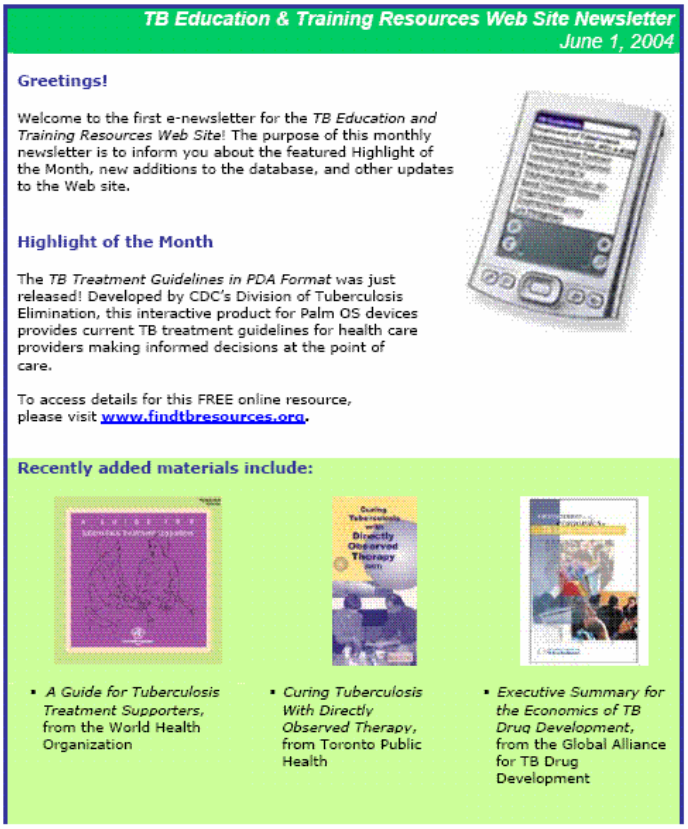
## UPDATES FROM THE COMMUNICATIONS, EDUCATION, & BEHAVIORAL STUDIES BRANCH

### Marketing Efforts for www.findtbresources.org

*Marketing kickoff.* At the 2004 National Tuberculosis Controllers' Association (NTCA) conference, held June 9-11, 2004, in Atlanta, Georgia, the Communications, Education, and Behavioral Studies Branch (CEBSB) of DTBE launched a marketing kickoff directed at TB program staff for www.findtbresources.org, a comprehensive, searchable TB education and training resources Website. The Website exhibit booth featured promotional items printed with the Website address, such as business cards, flashing buttons, and pens. The buttons had magnetic flashing lights and the catchy slogans "I've Got TB (resources) and "Got TB Resources?" and were very popular with NTCA conference participants.

*Website e-newsletter.* Another strategy for marketing the *TB Education & Training Resources Website* is the monthly newsletter that is e-mailed to TB-EDucate and TB Education and Training Network (TB ETN) members. The e-newsletter includes information on the website's current "Highlight of the Month," and promotes materials recently added to the database. If you would like to receive this electronic newsletter, please send an e-mail to info@findtbresources.org.

*Promote your organization's materials!* Promote your materials by submitting information about them to www.findtbresources.org! New materials are added to the online database every month. Be sure to make your organization's materials available to the public, and help the website be as robust and up-to-date as possible. A request for submission is available on the website and at the back of this issue.



TB Education & Training Resources Web Site Newsletter
June 1, 2004

Greetings!

Welcome to the first e-newsletter for the *TB Education and Training Resources Web Site*! The purpose of this monthly newsletter is to inform you about the featured Highlight of the Month, new additions to the database, and other updates to the Web site.

Highlight of the Month

The *TB Treatment Guidelines in PDA Format* was just released! Developed by CDC's Division of Tuberculosis Elimination, this interactive product for Palm OS devices provides current TB treatment guidelines for health care providers making informed decisions at the point of care.

To access details for this FREE online resource, please visit www.findtbresources.org.

Recently added materials include:

- *A Guide for Tuberculosis Treatment Supporters*, from the World Health Organization
- *Curing Tuberculosis With Directly Observed Therapy*, from Toronto Public Health
- *Executive Summary for the Economics of TB Drug Development*, from the Global Alliance for TB Drug Development

Above: First e-newsletter, June 2004.
Below: Website buttons and business card



*Testimonials about the website.* Read what people have to say about www.findtbresources.org, then visit the website to see what they are talking about!

My colleagues and I in the Education & Training Department at the New Jersey Medical School National TB Center have found the findtbresources website to be most helpful. More often than not, our search *quickly* leads us to just the right resource. In addition, we refer other health care professionals and students to the website to search for specific resources.

DJ McCabe, RN
Nurse Educator

This website brings the world of TB events, news, and resources to your fingertips. Anyone developing any educational course or product can avoid re-creating the wheel by looking at this website first. You will discover a treasure of fully developed products for education and resources for advocacy. In addition, the website provides a forum to share your program's courses and products, enabling us all to share the wealth of our experience in TB control.

L. Masae Kawamura, MD
Director/TB Controller
San Francisco TB Control Section
Department of Public Health

I have visited this site several times. The last time involved looking for TB drug fact sheets. I had tried other sources without much success. I next tried the findtbresources website. I found all kinds of drug fact sheets and we are now in the process of reviewing and adapting them for use in the state of Florida. This site is easy to use.

Jo-Ann Arnold, RN, MS
RN Consultant
Florida Department of Health
Bureau of TB and Refugee Health

Be sure to bookmark the *TB Education & Training Resources Website*!
Any questions or comments about the website can be directed to info@findtbresources.org.

**www.findtbresources.org**
Your one-stop site to find & share TB resources

*—Reported by Hsin-Hsin Foo, MPH and Amera Khan, MPH*
*Div of TB Elimination*

## A Partnership-Building Guide and Toolkit for U.S. TB Control Programs

CDC and its TB control partners recognize the importance of developing effective partnerships with organizations serving persons at high risk for TB as a critical element to TB elimination. This idea is emphasized in recommendations made in *A Strategic Plan for the Elimination of Tuberculosis in the United States* (1989). Developing effective partnerships is also emphasized in goals set in *CDC's Response to Ending Neglect: The Elimination of Tuberculosis in the United States* (2002).

With these recommendations and goals in mind, *Forging Partnerships to Eliminate Tuberculosis* (1995) — developed for use by TB control programs to facilitate partnership-building activities — was evaluated by DTBE. Based on this evaluation, DTBE determined that, for the document's continued and effective use, it should include up-to-date information on how to work with limited resources, strategies for partnership-building in low-morbidity areas, and tools for TB control programs to use in planning and responding to outbreaks. An update of *Forging Partnerships to Eliminate Tuberculosis* was initiated in fall 2001 in order to provide a partnership-building guide and toolkit that assists TB controllers in creating and sustaining effective partnerships.

The first step in the update process was to convene an expert review panel, whose members were asked to make content-update recommendations to *Forging Partnerships* and to advise on the development of the materials in the toolkit. Next, based on the recommendations of the expert panel, TB controllers and other TB control program staff conducted formative evaluation of the materials in a discussion group.

Finally, based on key suggestions from the expert panel and findings from the formative evaluation, the guide now includes

- characteristics describing effective resource-limited partnerships,
- success stories about reaching leaders of high-risk populations in low-morbidity areas, and
- ways to create and maintain a sense of ownership among the partners.

The quick-reference toolkit contains items such as

- goals and a SMART* objectives planning worksheet,
- an information-gathering worksheet for use with potential partners and
- an outbreak response communication needs assessment checklist.

*SMART: Are your objectives specific, measurable, attainable, realistic, and time-framed?

The target audience suggested titling the product *Forging Partnerships to Eliminate Tuberculosis: A Guide and Toolkit.*

The update of *Forging Partnerships to Eliminate Tuberculosis* through the use of a systematic health education process ensures the usefulness of the new product and provides TB controllers with practical guidance and tools to facilitate building and sustaining effective TB partnerships. The next step in this project is to implement the suggestions provided by the target audience during the discussion group for marketing and dissemination of the product in late fall 2004.

Marketing and dissemination activities for *Forging Partnerships to Eliminate Tuberculosis: A Guide and Toolkit* will include

- producing the guide and toolkit on paper and in CD-ROM formats,
- disseminating the guide and toolkit to all U.S. TB control programs at the state and local levels, and
- featuring the guide and toolkit at regional TB controller meetings.

*—Reported by Scott McCoy, MEd*
*Div of TB Elimination*

## UPDATE FROM THE CLINICAL AND HEALTH SYSTEMS RESEARCH BRANCH (CHSRB)

### Updates on the TB Trials Consortium (TBTC)

*Enrollment Update: U.S. PHS TBTC Study 27*
Enrollment for U.S. Public Health Service (PHS) TBTC Study 27, a double-blind, placebo-controlled comparison of the efficacy and tolerability of moxifloxacin versus ethambutol in the initiation phase of treatment of pulmonary TB, began in July 2003 at North America TBTC sites and in September 2003 at the Kampala, Uganda, site. Initially proposed to study 300 patients and to take 3 years to complete, the pace of enrollments is exceeding expectations. Of the 290 patients thus far enrolled, there has been an equal distribution of enrollments contributed from North America and from the Uganda TBTC sites. The pace of enrollments is expected to accelerate further with the participation of the Durban, South Africa, TBTC site in Study 27, which enrolled its first three patients on July 22, 2004. Because of these developments, it is hoped that enrollment for the entire study will be completed by early- to mid-January 2005 and that preliminary analyses can be completed in time for the May 2005 TBTC and American Thoracic Society (ATS) conferences.

*TBTC Study 27 PK*
A new substudy of Study 27, "Study 27 PK," was recently approved by the CDC institutional review board (IRB), and will be carried out at a limited number of TBTC sites. Consisting of two parts, this pharmacokinetic study will (a) compare the concentrations of moxifloxacin among patients receiving multidrug therapy for active TB to those of healthy volunteers; and (b) characterize the inter-patient variation of moxifloxacin pharmacokinetic parameters in patients with TB. Study 27 PK will also evaluate the effect of MDR1 and NAT2 genes on antituberculosis drug pharmacokinetics.

*TBTC Study 28*
Another new moxifloxacin study on the TBTC horizon is Study 28, which is currently undergoing review by the CDC IRB. The main comparison in Study 28 involves moxifloxacin with isoniazid (rather than ethambutol). Specifically, the primary objective of this Phase II clinical trial is to compare the safety and activity of a moxifloxacin-containing regimen (moxifloxacin, rifampin, pyrazinamide, ethambutol) in which moxifloxacin has been substituted for isoniazid, to the standard control regimen (isoniazid, rifampin, pyrazinamide, ethambutol) in the first 2 months of treatment of sputum smear-positive pulmonary TB. The assessment of microbiological activity will be sputum culture conversion. Improved sputum culture conversion after 2 months of treatment with a moxifloxacin-containing regimen would support phase 3 clinical trials of moxifloxacin in treatment regimens of less than the current 6-month standard regimens. The plan is to enroll 400 patients from both domestic and international TBTC sites.

*TBTC Study 26 Update: New Web-Based Enrollment Application*
TBTC Study 26 is a trial of short-course treatment of latent TB infection among contacts of active cases, using a 3-month once-weekly regimen of isoniazid and rifapentine, compared to standard 9-month therapy with isoniazid. This flagship TBTC study aims to enroll 7,700 subjects. To date, enrollments have been telephone-based. Recent consortium expansion to international sites, with the associated multiple time zones, makes Web-based enrollment an attractive alternative.

TBTC Study 26 plans to roll out a new Web enrollment application this fall. The Web application was developed as a pilot project through collaboration between DTBE/CHSRB and the Application Development Group, Prevention Informatics Office/NCHSTP. It will be accessible from any Internet connection and requires a user name and password. Advantages are immediate access for enrollments, increased clinic participation, system availability 24/7, and generation of automatic e-mail notification to sites regarding subject randomization and treatment schedules.

TBTC Study 26 has already enrolled 3,275 subjects using a Visual Basic/Access application developed in DTBE/CHSRB. Site staff members who call CDC to enroll study subjects occasionally experience delays owing to time zone constraints or when CDC staff are taking other calls. The Web enrollment application will allow real time access for TBTC Study 26 collaborators throughout the United States and in Canada, Brazil, and Spain. Our hope is to increase the pace of enrollments, moving us quickly to our recruitment goal for Study 26.

*—Submitted by Phil Spradling, MD*
*Div of TB Elimination*

## UPDATES FROM THE SURVEILLANCE, EPIDEMIOLOGY, AND OUTBREAK INVESTIGATIONS BRANCH (SEOIB)

## CDC Investigates Tuberculosis Outbreak in a Low-Incidence State—Allen County, Indiana, 2000–2004

Indiana is a low-incidence state for TB (i.e., case rate < 3.5 cases per 100,000 population), with a case rate of 2.3 cases per 100,000 population in 2003. From 2000 to 2002, Indiana's Allen County exceeded the state TB case rate with a mean rate of 2.9 per 100,000 (range 2.7 to 3.0 per 100,000), but was still a low-incidence county. However, in 2003, Allen County reported 16 patients with TB (case rate 4.7 per 100,000 population), and in the first half of 2004, reported 12 patients with TB disease. In March 2004, the Allen County Department of Health (ACDH) and the Indiana State Department of Health (ISDH) requested DTBE assistance with an investigation of ongoing transmission of *M. tuberculosis* in Allen County that was thought to have started in 2001.

In March 2004, a team from CDC was sent to Indiana to assist state and county health officials with the epidemiologic investigation. The team consisted of Idalia M. González, Dawn Tuckey, Phyllis Cruise, and Kathrine Tan of DTBE, and Tanyanika Douglas, a medical student on an epidemiology elective. The objectives of the investigation were to define the scope and extent of *M. tuberculosis* transmission, assist in identifying and prioritizing contacts for investigation, and make recommendations to ACDH and ISDH for the control and prevention of TB transmission in Allen County. As part of the initial assessment, the CDC team reviewed patient medical records, reinterviewed TB disease patients, assisted with the contact investigation, and sent *M. tuberculosis* isolates for genotyping. Cases that had a matching *M. tuberculosis* genotype or, when no isolate was available for genotyping, an epidemiologic link to a previously identified case, were considered outbreak-related.

After the initial CDC team visit, Dawn Tuckey, the CDC state TB program consultant, and several public health advisors (PHAs)—Phyllis Cruise, Gabe Palumbo, Derrick Felix, Wendy Heirendt, and Tracina Cooper—have been sent to Allen County for continued technical and programmatic assistance. Additional outbreak-related cases of TB disease continued to be found, requiring a second follow-up investigation in July 2004. CDC continues to assist ACDH and ISDH with this ongoing TB outbreak, and the results of the investigation thus far are summarized below.

Twenty-six cases of TB disease from 2001 to present are thought to be outbreak-related. The median age of outbreak-related TB patients is 27 years, almost all are African-American, more than half are female, and 19 reside in two contiguous zip codes. Of the 16 patients tested for HIV, all were HIV negative. Pulmonary TB was present in 18 (69%) patients. Six patients (23%) were highly infectious, having acid-fast bacilli (AFB) identified on sputum smear and chest radiographs showing cavitary lesions.

All available *M. tuberculosis* isolates from TB patients reported from 1999 to 2004 in Allen County were genotyped. Of these 36 isolates, 16 had matching genotypes. Cross-matching of the spoligotype with the National TB Genotyping and Surveillance Network (NTGSN) database has determined that this spoligotype has been previously identified.

A total of 1096 contacts have been identified. Of the 749 (68%) patients that have been tested with at least an initial tuberculin skin test (TST, positive defined as induration ≥ 5 mm), 130 (17%) had positive TST results. Of these 130 contacts, 16 (12%) developed TB disease, and the remainder were candidates for latent TB infection (LTBI) treatment. Seventy-seven (68%) of the LTBI treatment candidates started therapy; however, 18 (23%) defaulted. Three (17%) of the defaulters and one who refused treatment developed TB disease. Had these contacts completed LTBI treatment, 16 other TB cases may have been prevented. All contacts who

defaulted identified lack of TB knowledge as a major barrier to completing LTBI treatment.

In summary, achieving TB control in this outbreak will require thorough contact investigations, TB education in health care workers (HCWs) and the community, and close patient management, which will include directly observed therapy for LTBI in patients who are at high risk of developing TB disease (i.e., children less than 5 years of age and immunosupressed persons). Recognizing an ongoing and increased need for TB services and education, ACDH is restructuring its TB program and increasing financial and personnel resources. Additionally, ACDH is working with CDC to develop educational programs for the TB clinic staff, local HCWs, and the community. Improved TB education and communication between HCWs and the community may help with prompt identification of TB disease and increased adherence of patients to LTBI treatment.

*—Reported by Kathrine Tan, MD, Epidemic Intelligence Service Officer*
*Div of TB Elimination*

## TB Epidemiologic Studies Consortium (TBESC) Update

The 5th semiannual meeting of the TB Epidemiologic Studies Consortium (TBESC) was convened in Atlanta, Georgia, April 28-29, 2004, at the Westin Peachtree Plaza Hotel. The goals of the meeting were to discuss the impact of the limited DTBE budget on the TBESC, provide updates on progress with TBESC research activities and committees, enhance participants' budgetary, fiscal, and research skills, and provide an opportunity for TBESC members to meet in smaller groups to discuss individual research projects.

More than 95 persons attended. Presentations were given on the following topics:

- Updates on task orders #1-14
- DTBE funding and implications for TBESC
- TBESC Performance Standards Workgroup update
- Task order evaluation process
- Westat update
- TBESC's Data Management and Communications System
- Diagnostic Workgroup update
- APHL report regarding genotyping
- Interviewing for epidemiologic research
- Updates from 5 TBESC committees
- TBTC update

Participants also spent a portion of their time in small group/breakout sessions discussing the following topics:

- TB diagnostics
- Process evaluation issues
- Fiscal issues
- Task orders

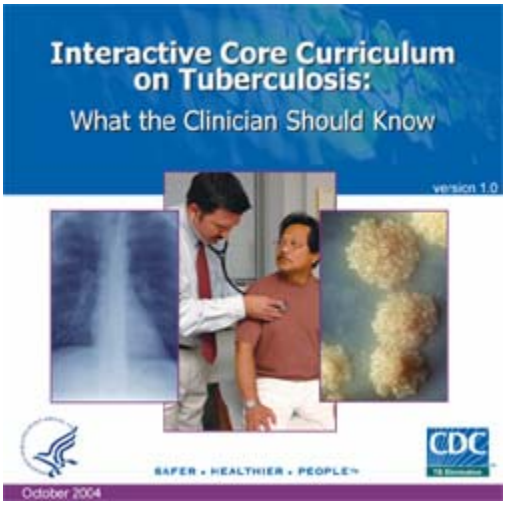
Our next steps include addressing TBESC's budget deficit while ensuring that the consortium's science remains intact, continuing ongoing research projects, rolling out the pilot version of TBESC's Data Management and Communications System, moving forward with Phases II and III of Task Order #13, awarding Task Order #15, "Enhancing TB Programs' Capacity for Self-Evaluation: Testing New Tools and Developing an Evaluation Toolkit," and coordinating IRB activities.

The 6th semiannual meeting was held in Atlanta, Georgia, November 18 and 19, 2004, on CDC's campus. Details regarding the meeting are forthcoming.

*—Reported by Viva Combs, MPH*
*Division of TB Elimination*

## TRAINING AND EDUCATIONAL MATERIALS

The Communications, Education, and Behavioral Studies Branch (CEBSB) is pleased to announce the release of the *Interactive Core Curriculum on Tuberculosis: What the Clinician Should Know* Web-based course. This course was designed to provide clinicians with basic information about TB, including the diagnosis, treatment, and prevention of latent TB infection and TB disease. The course is available at www.cdc.gov/nchstp/tb/webcourses/corecurr/index.htm. A CD ROM version of the course was released in early 2005. The revised print version of the *Core Curriculum on Tuberculosis* will be released in fall 2005.




This Web-based course consists of nine interactive chapters:

1 - Tuberculosis in the United States
2 - Transmission and Pathogenesis of Tuberculosis
3 - Testing for Tuberculosis Disease and Infection
4 - Diagnosis of Tuberculosis
5 - Treatment of Latent Tuberculosis Infection
6 - Treatment of Tuberculosis Disease
7 - Infection Control in Health Care Settings
8 - BCG Vaccination
9 - Community Tuberculosis Control

Continuing education (CE) credits are offered free of charge for various professions based on approximately 5 hours of instruction in the course: 5.25 continuing medical education credits (CME), 6.1 continuing nursing education credits (CNE), 0.5 continuing education units (CEU), and 5.0 Certified Health Education Specialist continuing education contact hours (CECH). The course includes instructions for obtaining credit.

*—Reported by Maria Fraire, MPH, CHES*
*Div of TB Elimination*

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## PERSONNEL NOTES

Gus Aquino has left the position he held for 2 years in Moscow to take another CDC position in Atlanta. On November 12 he left Moscow, having accepted a position as a CDC Team Leader in the Division of HIV/AIDS Prevention (DHAP) in

the Prevention Program Branch. This new position in CDC Atlanta is an opportunity for Gus to provide managerial oversight of HIV/AIDS program activities in the United States (including Puerto Rico), as well as for new responsibilities and continued professional growth. Gus was instrumental in establishing and working with the CDC/USAID DOTS pilot regions since 1999 as well as in Moscow, and his capabilities and presence will be difficult to replace. However, we are delighted that he is returning to Atlanta and contributing his expertise to the important arena of fighting HIV/AIDS.

Gabrielle (Gaby) Benenson, MPH, Health Education Specialist in the Communications, Education, and Behavioral Studies Branch of DTBE, recently completed an assignment with the International Experience and Technical Assistance (IETA) Training Program. IETA is a developmental training program for federal public health employees. CDC continues to act as a source of international technical assistance, and is increasing its role in the direct provision of global prevention and prevention research programs. The IETA program was established in 1997 to increase the number of CDC staff with international training and experience. The program combines classroom training with field experience offering public health professionals the opportunity to enhance their skills and apply them in an international public health setting. As part of this program, Gaby was detailed from September 13 to December 13, 2004, to Southeast Asia. She assisted in providing a train-the-trainer course for Vietnamese and Thai Ministry of Health staff in Bangkok, Thailand, and participated in training needs assessment, curriculum development, and consulting on training methodologies and courses for the Global AIDS Program (GAP) office in Vietnam.

Sylvera Demas, MPH, began an assignment to the Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB) on September 27 through the CDC Public Health Prevention Service (PHPS) fellowship program. Sylvera, who replaces Jo Ann Shoup, will be working with DTBE until February 25, 2005. He comes to the PHPS fellowship program with an MPH degree in biostatistics from the College of Public Health, University of South Florida, Tampa, Florida. Sylvera, who is fluent in French and Creole and an excellent soccer player, is working with Dr. Scott McNabb and his biotechnology engagement project (BTEP) partners in the United States and the republics of Armenia and Georgia.

Mike Holcombe (U.S. Naval Reserve Petty Officer First Class James M. Holcombe) was named one of the top five sailors for the U.S. Naval Reserve Force for fiscal year 2003. Mike is director of the Bureau of Tuberculosis and Refugee Health for the Mississippi State Department of Health. He was named Sailor of the Year at the reserve center in Meridian where he completes his weekend drills. Mike, who is the senior enlisted sailor of the 4th Force Service Support Group Detachment 9 at this reserve center, was deployed to Kuwait last year in support of Operation Iraqi Freedom. There, he assisted with a shock trauma platoon that provided routine patient care to soldiers. A volunteer in his community, Mike has received the Military Outstanding Volunteer Service Medal three times in his 17-year military career. He was also recently honored in a Senate resolution for his Naval Reserve Readiness Command (REDCOM) award. We congratulate Mike for this recognition of his distinguished service in the reserves and thank him for his continued leadership in TB prevention and control in Mississippi.

Margaret Jackson has recently accepted a promotion in the Clinical and Health Systems Research Branch (CHSRB) as a Public Health Analyst. Margaret had been serving as Executive Coordinator of the TB Trials Consortium (TBTC) Steering Committee providing organizational support and oversight for the TBTC Data and Coordinating Center housed in CHSRB. In the latter capacity, she has been especially helpful in

providing for smooth and efficient institutional review board (IRB) review of the many TBTC study protocols by both the CDC IRB and the local IRBs at the 29 TBTC sites throughout North America and internationally. She has also established an exemplary management process for support functions in CHSRB. In her new position, Margaret will serve as a key advisor to the branch chief in providing technical advice and assistance; as principal management person for the branch providing a wide range of expertise in the area of budgeting/financial management and in support of clinical trials and other research studies of diagnosis, treatment, and prevention of TB; and as lead in all personnel matters for the branch. She will continue to oversee the branch's IRB-related activities for the TBTC, and will now expand these to include all branch projects. Thus, she will function as Co-Project Officer and primary contact and liaison for matters concerning IRB review of research protocols; serve as a member of the management team assisting in the day-to-day administrative management of the branch; and continue to serve as Executive Coordinator of the TBTC Steering Committee (the central decision making body of the TBTC).

Eugene McCray, MD, has left his position as Director of the Global AIDS Program (GAP) and joined the CDC Office of Global Health as the Senior Scientific Advisor to Dr. Steve Blount as of November 1, 2004. In addition to serving as Senior Scientific Advisor, he will also oversee expanded program liaison and partnership activities for OGH. Eugene served as the Director of GAP beginning in April 2000. During this time he oversaw the establishment of GAP and its growth to 27 country and regional programs around the world – enabling the delivery of quality HIV prevention and AIDS care and treatment services to millions of people most in need. His strong leadership and diplomatic skills and his unwavering commitment to working in partnership with other programs at CDC, other U.S. agencies, international organizations, and health professionals at all levels have enabled GAP to focus its resources for the greatest impact. Eugene began his career at CDC in 1983 as an Epidemic Intelligence Service officer with the former Hospital Infections Program in the National Center for Infectious Diseases, working on issues of hospital-acquired infections, including evaluating risk for transmission of HIV in hospitals. He left CDC for 2 years, during which time he worked for a health maintenance organization. Upon returning to CDC in July 1988, Eugene's work became focused on HIV surveillance in special populations, in the United States and internationally, and on surveillance for TB infection and disease in the United States. From 1993 to 2000, he served as the chief of the surveillance section of DTBE's surveillance branch. He provided strong leadership in many of the surveillance branch projects, including the implementation of SURVS-TB and the transition to TIMS, and provided important, critical analyses of the TB surveillance database to improve our understanding of TB epidemiology. In 2000 he left DTBE for his recent position in GAP. He has served as a health consultant to international agencies, including the World Health Organization and the International Union against TB and Lung Diseases, and has worked on TB and HIV/AIDS projects in a number of countries in South and East Africa. Eugene has published numerous articles on public health, and has received numerous awards for his scientific and public health contributions. He is also a practicing infectious diseases physician, working each week in a primary care clinic for HIV-infected persons. In addition, Eugene recently received the USPHS Distinguished Service Medal, which is the highest award that can be given in the Commissioned Corps.

Ted Misselbeck accepted a promotion to the State of Tennessee Health Department TB Program in Nashville, effective October 17, 2004. His previous duty station was the City of Saint Louis Health Department, from November 2002 to October 2004. While in St. Louis, Ted's responsibilities included efforts to contain a TB outbreak in the city's largest homeless shelter.

During a 3-year period, 19 cases and 2 deaths were reported. Ted was the lead coordinator of an outbreak team that comprised 11 different agencies and vendors. Ted also assisted in getting two pieces of legislation introduced and passed by the Board of Aldermen and signed into law by the mayor. One bill established a TB Ordinance which permitted a nominal fee to be charged for TB skin testing required by clients for pre-employment; all generated funds are placed into a designated account to be used exclusively to purchase TB treatment incentives and enablers. Another bill updated a century-old quarantine law to include current language terms in reference to bioterrorism, isolation, and quarantine. His previous assignment had been with the Palm Beach Health Department TB program beginning in January 2001. His duties there included DOT, hospital interviews of new suspects, and case management. Ted assisted in the county's transition from manual to computer documentation reporting. Prior to joining DTBE, Ted worked as a primary therapist with Seabrook House in Seabrook, New Jersey, and as a pharmaceutical sales representative with Sandoz Pharmaceuticals in Middlesex County, New Jersey, and Staten Island, New York.

Paul O. Poppe, Deputy Director of DTBE, retired from CDC after 30 years of service on January 2, 2005. Paul has worked in the National Center for HIV, STD, and TB Prevention (originally the National Center for Prevention Services) throughout his career and will be missed enormously, not only for his valuable institutional memory and managerial expertise, but for his personal integrity and congeniality. Paul plans to "redefine retirement" by refusing pleas to come back to work as a contractor. Instead he will build a new home in Braselton, Georgia, play more golf (conveniently, the new house will be on a golf course), do woodworking projects, and of course spend more time with his grandchildren. Paul began his career in public health after receiving a degree in mathematics from the University of Nebraska at Kearney in 1971. Paul was hired by the Nebraska Department of Health in 1973, and in 1974 joined CDC as a Disease Intervention Specialist in Nebraska in CDC's sexually transmitted disease (STD) program. Three months later, he was assigned to the Los Angeles County Health Services STD program. From LA the family traveled to Cleveland, Ohio, where Paul served as first-line supervisor; then on to Alabama, where Paul was Regional Supervisor with a base office in the Jefferson County Department of Health STD program, then in the early 1980s back to LA, where Paul was the District Coordinator for the LA County STD program. By this time, the AIDS epidemic had begun, and one of Paul's critical contributions was to help allay concerns about a perceived connection between a newly-developed hepatitis B vaccine and the mysterious syndrome that was killing young, healthy gay men. Paul's last field assignment was Senior Public Health Advisor in the New Orleans Department of Health STD program, and in 1986 he transferred to Atlanta to the National Center for Prevention Services, where he quickly rose to the position of Chief, Field Operations Section, Division of STD/HIV Prevention. In 1993, Paul joined DTBE, where he has remained to the present. Paul served as DTBE's Deputy Associate Director for Management and Operations, then Associate Director for Management and Operations, and finally became Deputy Director in 1998. With his calm, professional deportment and friendly attitude, Paul has effectively managed crucial aspects of DTBE's operations, management, and budget. He has also represented DTBE with distinction to other federal and international agencies with responsibilities for TB control.

Paul's special assignments have included chairing DTBE's TIMS Transition Team. The Tuberculosis Information Management System (TIMS) was the first Windows-based client-server application distributed by CDC to support a national surveillance system and helped to set data quality standards for newer, broader electronic surveillance systems. Paul has also been instrumental in developing

CDC's response to the Institute of Medicine (IOM) report, *Ending Neglect*, and the Federal TB Task Force plan in response to the IOM report, playing a major role in outlining and coordinating plans for implementing these recommendations nationwide. Paul is perhaps best known for his gifts in management. Throughout his career he has demonstrated an exceptional ability to recruit new staff. Paul has mentored many of CDC's public health advisors, including several senior CDC staff. Paul's advice to other leaders is that "hiring people is the most important task a manager can do." Paul was recognized for his supervisory skill and outstanding contributions to DBTE in 1999 by the Atlanta Federal Executive Board. Paul attributes much of his success to the support of his family. His wife of 36 years, Pam, helped Paul establish himself in field service with her ability to uproot and relocate; as a math teacher, Pam was able to find jobs in each of their new locations. Paul has made many outstanding contributions to public health. His friends throughout the public health community owe him a debt of gratitude for his guidance and friendship, and he will be missed enormously.

Cathy Rawls, MPH, CHES, has joined the Clinical and Health Systems Research Branch (CHSRB). Cathy joined CHSRB on October 25 as an Association of Schools of Public Health (ASPH) fellow. Cathy is not new to DTBE, having worked for 2 years as an ASPH fellow with the Communications, Education, and Behavioral Studies Branch (CEBSB). She will be working on various research projects, including "Perceptions of Tuberculosis Among Immigrants and Refugees in the United States: An Ethnographic Study;" "Improving Tuberculosis Services for Persons with HIV Infection: Documenting Success;" and follow-up on the "The Behavioral and Social Science Research Forum." Cathy graduated in May 2002 from the Health Behavior and Health Education Program in the School of Public Health at the University of North Carolina at Chapel Hill, where she also received her BA degree in sociology. Prior to entering graduate school, Cathy served 2 years in the Americorps Volunteers in Service to America (VISTA) program in North Carolina (NC) as the Family Literacy project coordinator and in the NC Public Allies program as an HIV/AIDS health educator.

Phillip Talboy was selected as Deputy Director, DTBE, National Center for HIV, STD, and TB Prevention (NCHSTP). Phil comes to DTBE with experience in a variety of public health programs, both at CDC and in the field. Beginning in 2002 he served as Deputy Director, Division of Injury, Disability Outcomes, and Programs, National Center for Injury Prevention and Control. In this capacity, he served as Acting Director and helped to establish and cultivate external partnerships. He has also worked in cancer surveillance, environmental health, emergency response coordination, and as an STD/HIV consultant and training coordinator. While in Florida, he was part of the effort to integrate the state health department HIV, STD, and TB program activities. Phil began his career as a Public Health Advisor in the National Center for Prevention Services (predecessor of NCHSTP) assigned to the Maricopa County STD Program. Since then he has accrued increasing managerial responsibilities while assigned to Florida, Washington, DC, and different positions in CDC/Atlanta.

Kathrine Tan, MD, a second year EIS officer in the International Research and Programs Branch, has recently been accepted into the Preventive Medicine Residency (PMR) program at CDC, to begin in July 2005. Through the PMR, she will be sponsored to pursue an MPH degree at Emory University followed by a practicum year. The PMR will build on her epidemiologic experience in EIS as well as provide additional training in health policy.

## In Memoriam

Lisa S. Rosenblum, MD, MPH, a Commander in the U. S. Public Health Service Commissioned Corps and a member of DTBE's Surveillance, Epidemiology, and Outbreak Investigations

Branch, died at home on January 15, 2005. She was a loving mother to her son, Michael Rosenblum Friede, and is also survived by her parents, Sam and Ruth Rosenblum of Hackensack, NJ, and a sister and brother-in-law, Gene Rosenblum and Mitchel Ostrer, of Princeton, NJ. Graveside services were held on Monday, January 17, 2005, at Arlington Cemetery in Sandy Springs, Georgia. In lieu of flowers, contributions may be made to Jewish National Fund or the Make-A-Wish Foundation.

Lisa completed her medical degree in 1984 at SUNY Upstate Medical Center and her masters degree in public health in 1986 at Johns Hopkins University. She joined CDC in the EIS Class of 1987, and over the next 17 1/2 years became an accomplished physician-scientist who made significant contributions to improvements in the prevention and control of several public health problems, including hepatitis, HIV/AIDS, lead poisoning, and tuberculosis. She was driven by a desire to make a difference in the lives of fellow humans.

She will be sorely missed by friends and colleagues at CDC. Our heartfelt condolences, thoughts, and prayers are with Lisa's family.

## CALENDAR OF EVENTS

February 23-26, 2005
9th Annual IUATLD North American Region Meeting
International Union Against Tuberculosis and Lung Disease
Vancouver, BC, Canada
E-mail: info@bc.lung.ca

February 25, 2005
Update on Pulmonary and Infectious Diseases
Abilene, Texas
The Center for Pulmonary and Infectious Disease Control and the American Lung Association of Texas
For information: Robin Anderson, RN, tel: (512) 467-6753 or Web site: http://www.texaslung.org/programs/professionalconferences/index.htm

March 2-4, 2005
2005 APHL Infectious Disease Conference
Orlando, Florida
Association of Public Health Laboratories
Web site: http://www.aphl.org/National_Conferences/2005_Infectious_Disease_Conference/abstracts.cfm

March 7-8, 2005
The TB Cohort Review Process
The Charles P. Felton National Tuberculosis Center at Harlem Hospital
New York City
Tel: (212) 939-8254
http://www.harlemtbcenter.org/

April 1, 2005
Update on Pulmonary and Infectious Diseases
El Paso, Texas
The Center for Pulmonary and Infectious Disease Control and the American Lung Association of Texas
For information: Robin Anderson, RN, tel: (512) 467-6753 or Web site: http://www.texaslung.org/programs/professionalconferences/index.htm

April 2-7, 2005
Tuberculosis: Integrating Host and Pathogen Biology
Keystone Symposia on Infectious Disease
Whistler, British Columbia, CANADA
Web site: http://www.keystonesymposia.org/Meetings/ViewMeetings.cfm?MeetingID=742

April 11-14, 2005
54th Annual EIS Conference
Atlanta, GA
Epidemic Intelligence Service, CDC

Website for information:
http://www.cdc.gov/eis/conference/conference.htm.

April 20-23, 2005
The Denver TB Course
Denver, CO
National Jewish Medical and Research Center
Web site: http://www.njc.org/tbcourse.html

April 22, 2005
Update on Pulmonary and Infectious Diseases
Tyler, Texas
The Center for Pulmonary and Infectious Disease Control and the American Lung Association of Texas
For information: Robin Anderson, RN, tel: (512) 467-6753 or Web site:
http://www.texaslung.org/programs/professionalconferences/index.htm

August 17-19, 2005
TB Education and Training Network (TB ETN) 5th Annual Conference
Atlanta, GA
TB Education and Training Network
Website for information:
http://www.cdc.gov/nchstp/tb/TBETN/default.htm

September 15-16, 2005
The TB Cohort Review Process
The Charles P. Felton National Tuberculosis Center at Harlem Hospital
New York City
Tel: (212) 939-8254
http://www.harlemtbcenter.org/

# TB Education and Training Network (TB ETN) Individual Membership Application

Date: _____

Visit **www.cdc.gov/nchstp/tb/tbetn** for details on membership features

**I am a**

- ❑ New Member
- ❑ Renewing Member

**Contact Information** (Please print or type)

Name: _____

Degree(s): _____

Job Title: _____

Employer: _____

Mailing Address: Street _____

City _____ State/Province _____

Zip/Postal _____ Country _____

Phone: _____ Fax: _____

E-mail: _____

**Type of Employer**
(Check only one box)

- ❑ Federal government
- ❑ State government
- ❑ County/city government
- ❑ Non-profit agency
- ❑ Hospital/Acute care facility
- ❑ Migrant clinic
- ❑ Private medical office/clinic
- ❑ Correctional center/jails
  ___ State ___ County/City ___ Federal
- ❑ Homeless shelter
- ❑ Long-term care facility
- ❑ Occupational health facility
- ❑ University/college
- ❑ Community Based Organization
- ❑ Other *(Please specify):* _____

**Type of Membership**
(Check only one box)

OPTION 1

- ❑ **Active**
  Individuals who have the lead role for TB education and training in their agencies. Active members have the opportunity to participate in all TB ETN activities, receive priority registration for all TB ETN meetings and activities, may vote on TB ETN business-related issues, and serve on subcommittees.

OPTION 2

- ❑ **Information only**
  Individuals who do not have a lead role in TB education and training in their agencies or do not wish to actively participate in TB ETN activities. Information-only members receive information about TB ETN meetings, activities, etc., via e-mail postings to the membership. Information-only members are not eligible to vote on TB ETN business-related issues or serve on subcommittees.

**Join a Subcommittee**

Subcommittee membership is open to all **Active Members**. Subcommittee activities include monthly telephone conference calls, development of tools to benefit TB educators, marketing of TB ETN, and planning the annual conference.

- ❑ Communications/Membership Subcommittee
- ❑ Conference Planning Subcommittee
- ❑ Cultural Competency Subcommittee

## Additional Information

In a 40-hour work week, what percent of your time is spent on TB education and training activities? _____

In your program area, with what other TB control agencies, if any, do you collaborate? (Please list)
1.
2.
3.

Please describe your top five job responsibilities as they relate to **TB education and training** activities.
1.
2.
3.
4.
5.

What top five special interest/expertise areas do you have that might strengthen TB ETN?
1.
2.
3.
4.
5.

What do you hope to gain by membership in the TB ETN?

***"Bringing together TB education and training professionals"***
**Information for New and Existing Members**

**Benefits of Membership**

- Networking and collaborating with other TB education and training professionals
- Exchanging ideas, information, and experiences
- Accessing and sharing resources
- Collaborating on training and education research
- Receiving updated information about TB courses and training initiatives
- Building TB education and training-related skills
- Pilot testing and previewing *new* communication and education materials

Membership is open to all persons who have an interest in TB education and training issues. To activate membership, an individual must complete this application. New members may join TB ETN at any time during the year. There are no membership fees. In order to keep the membership list current, the Steering Committee may, on an as-needed basis, request members to re-register.

If you have any questions about TB ETN or would like to request additional membership forms, please contact TB ETN at **tbetn@cdc.gov**.

**Send completed membership application:**

E-mail: tbetn@cdc.gov
Fax: (404) 639-8960

Mailing address:
TB ETN/CDC
1600 Clifton Rd., NE MS E10
Atlanta, GA 30333 USA

## TB Education and Training Materials Submission Request

**Please mail, fax, or e-mail completed request to the CDC National Prevention Information Network (NPIN), Attn: Manager, 8737 Colesville Road, Suite 1200, Silver Spring, MD 20910; fax: (301) 565-3710; e-mail: info@findtbresources.org. For additional information call 800-458-5231 and press "1" for reference and referral staff who will direct your call.**

| | |
|---|---|
| **Title of Material:** | |
| **Language:** | **Country of Origin:** |
| **Author:** | **Date of Publication:** |
| **Available From (organization that distributes the material):** | |
| **Contact/Ordering Information:**<br>**(address, telephone, e-mail)** | |
| **Web Site Address (if applicable):** | |
| **Cost of Material:** | **Continuing Education Credits Available:** |

**Material Format: Please circle the most appropriate format**

| | | | |
|---|---|---|---|
| Audiotape | DVD | Manual | Promotional Item |
| Bibliography | Fact Sheet | Module | Report |
| Book | Flipbook | Newsletter | Slide Set |
| Booklet | Game | Online Course | Study Guide |
| Brochure/Pamphlet | Guideline | Online Resource | Teaching Guide/Training Curriculum |
| CD-ROM | Information Card | Photo Novella | Tool |
| Coloring Book | Information Kit | Pocket Guide | Videotape |
| Comic Book | Journal | Poster/Wall Chart | |

**Target Audience: Please circle the appropriate target audience(s)**

| | | | |
|---|---|---|---|
| Advocates | Government Agencies | Long-term Care Residents | Parents |
| African Americans | Health Educators/Communicators | Long-term Residential Care Providers | Persons with HIV/AIDS |
| Asians/Pacific Islanders | Health Professionals | Managers and Supervisors | Persons with LTBI |
| Business and Labor Organizations | Hispanics | Medical and Nursing School Students | Persons with TB |
| Children/Adolescents | Homeless | Migrant Workers | Physicians |
| Civil Surgeons | Infection Control and Occupational Health Workers | Native Americans | Policy Makers |
| Community Leaders | Inmates | Nurses | Social Service Providers |
| Correctional Personnel | International Agencies | Outreach Workers | Substance Abusers |
| Foreign-born/Immigrant | Lab Personnel | | |
| General Public | | | |

**Topic Area: Please circle the appropriate topic area(s)**

| | | | |
|---|---|---|---|
| Advocacy/Communications | • Skin Test | Long-Term Care Facilities | Racial/Ethnic Minorities |
| BCG and Other Vaccines | • Skin Test Practice Arms | Managed Care | Schools/Universities |
| Case Management | • Skin Test Rulers | Migrant Workers | Shelters |
| Children | • Sputum Smear Examination | Multidrug-resistant TB | Substance Abuse Facilities |
| Comprehensive TB Materials | Extrapulmonary TB | Outbreaks | Surveillance |
| Contact Investigation | Foreign-born/Immigrant | Partnership Building | Training and Education |
| • Interviewing | General TB Information | Pregnant Women | Treatment |
| Corrections | Guidelines, Policies, and Protocols | Program Evaluation | • Adverse Reactions |
| Cultural Competence | History of TB | Program Management | • Directly Observed Therapy |
| Diagnosis | HIV/AIDS Co-infection | • Directly Observed Treatment, Short-Course (DOTS) | • Latent TB Infection |
| • Chest Radiographs | Homeless Persons | • DOTS-Plus | • Medication Information |
| • Culture Examination | Infection Control | | • Patient Adherence |
| • Laboratory Procedures | • Engineering Controls | | • TB Disease |
| • Screening | • Health Care Workers | | Workplace Settings |
| | • Respiratory Protection | | |

**Please list format, audience, or topic area for your material if the appropriate option is not listed above:**

**If your document is available electronically, please e-mail it to info@findtbresources.org. Thank you for your assistance.**

**Charles P. Felton National TB Center**
Samuel L. Kountz Pavilion
15 W 136th Street, 6th Floor
New York, NY 10037
Phone: 212-939-8254
Fax: 212-939-8259

The Charles P. Felton
National Tuberculosis Center at Harlem Hospital

and the

New York City Department of Health and Mental Hygiene
Bureau of Tuberculosis Control

are pleased to offer courses in March and September on

# THE TB COHORT REVIEW PROCESS

## March 7-8, 2005

## September 15-16, 2005

For selected teams of TB controllers, program managers, and epidemiologists—especially from cities, counties or states with a medium or high incidence of TB. The first day in the afternoon and all day on the second day you will learn the theory and practice of the "cohort review" method, originally designed by Karl Styblo, to systematically analyze treatment outcomes of every documented TB case in your program area. This useful approach serves several purposes: staff motivation, program review, and training needs assessment.

Observe how it is practiced by staff of the Bureau of TB Control, New York City Department of Health and Mental Hygiene, and discuss how to modify or apply the method in your own program area.

By the end of the course you will be able to:

- Define the cohort review approach
- Discuss the roles key TB control staff play in the cohort review process
- Describe elements of the cohort review process
- Organize the details of a complex case into a brief oral presentation
- Collect data from a cohort review session and calculate statistics for various outcomes
- Identify reasons for program failures and discuss how this information can be used to improve program performance
- Plan how to adapt and implement the cohort review method in your program area

## HOW TO APPLY

Complete the application below and fax or mail it to:

Charles P. Felton National TB Center, Kountz Pavilion, 15 W 136th St., 6th Fl., New York, NY 10037

Phone: 212-939-8254. Fax: 212-939-8259. Website: www.harlemtbcenter.org

If the course reaches maximum enrollment early, your application will be kept for future courses. Applicants will be notified in writing of their acceptance into the course.

Please complete this entire form. **Print clearly or type, and do not use abbreviations.** Incomplete applications will delay the application process.

CHARLES P. FELTON NATIONAL TUBERCULOSIS CENTER AT HARLEM HOSPITAL

# THE TB COHORT REVIEW PROCESS

**Check one:** ❑ **March 7-8, 2005**

❑ **September 15-16, 2005**

Please check one: ❑ Dr. ❑ Mr. ❑ Ms. ❑ Mrs.

Last name _____ First name _____ Middle initial _____

Degree(s) used after name _____ Position title _____ How did you hear about the course? _____

**Mailing address**

Street _____ Apt. # / Suite # _____

City _____ State _____ Zip Code _____

Division, Department, and/or Program _____ Organization _____

Office telephone _____ Ext. _____ Fax No. _____ E-mail address _____